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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,041	07/25/2003	Spiros G. Raftis	1164-031125	4051
28289	7590	04/19/2005	EXAMINER	
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			KRISHNAMURTHY, RAMESH	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,041	<b>Applicant(s)</b> RAFTIS, SPIROS G.	
	<b>Examiner</b> Ramesh Krishnamurthy	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 27 is/are pending in the application.
- 4a) Of the above claim(s) 17 - 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/04 &amp; 09/04</u> . | 6) <input type="checkbox"/> Other: _____  |

This office action is responsive to communications filed 09/03/2004.

**Claims 1 – 27 are pending.**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1 - 16, drawn to a check valve, classified in class 137, subclass 846.
  - II. Claims 17 - 27, drawn to a support and a method of supporting a check valve, classified in class 137, subclass 315.33.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not call for the features that subcombination calls for such as a short curved plate or a plate having the size and contour similar to an upper portion of a part of the check valve. The subcombination has separate utility such as for supporting a check valve.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with John McIlvaine on 04/15/2005 a provisional election was made with traverse to prosecute the invention of check valve, claims 1 -

16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17 – 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

**Claims 1 – 16 remain for further consideration.**

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "said support plate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 3, 6 – 11, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Raftis et al. (US 5,931,197).

Raftis et al. ('197) discloses (Figs. 5, 6 for example) a large diameter check valve, comprising: an upstream inlet part (34) mountable on the discharge end of a conduit (32) via a flanged connection; a downstream outlet part (36) adapted to prevent backflow of fluid through the check valve; a transition part (38) located between the upstream inlet part and the downstream outlet part; and a rigid support (50) connected to an upper portion only of at least said inlet part and said transition part. The support is embedded within said check valve and comprises a curved plate (54) having at least one rib or bar. The check valve is made at least in part from an elastomeric material, further comprising synthetic fiber reinforcement in said elastomeric material (Col. 3, lines 20 – 23). That the upstream inlet part is made at least in part from a stiff durable material is considered to be inherent to the disclosure of Raftis et al. since such part is secured to the pipe a flanged connection and the part needs to be necessarily stiff in order for the check valve to be securely connected to the pipe (32). The upstream inlet part includes polyester fabric reinforcement (Col. 3, lines 26 – 30).

10. Claims 1, 3 – 8, 10, 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Painter (US 187, 411).

Painter discloses (Figs. 1 – 3) a large diameter check valve mountable via flanged connection with an upstream inlet part to a conduit end at (A), a transition part B) and a downstream outlet part (b), support plates (e, f) that are attached to either outer or inner surface of a check valve part for the purpose of providing rigid support to the valve part. Painter also discloses plurality of holes in the support plate for the purpose of securing the plate to the associated valve part. Painter also discloses a first

flange on an upstream inlet part that is connected to the valve plate (A) and the support plates (e, f) have corresponding second flanges that are connected to the first flange.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4, 5, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raftis et al. (US 5,931,197) as applied to claims 1 – 3, 6 – 11, 13 and 15 above, and further in view of Painter (US 187, 411).

The patent to Raftis et al. discloses the claimed invention with the exception of explicitly disclosing the support being attached to either the outer surface or the inner surface of the check or providing holes in the support plate.

Painter discloses (Figs. 1 – 3) that it is known in the art to provide support plates that are attached to either outer or inner surface of a check valve part for the purpose of providing rigid support to the valve part.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Raftis et al. support plates that are attached to either outer or inner surface of a check valve part for the purpose of providing rigid support to the valve part, as recognized by Painter. Painter also discloses plurality of holes in the support plate for the purpose of securing the plate to the associated valve part. Painter also discloses a first flange on an upstream inlet part that is connected to

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the valve plate (A) and the support plates (e, f) have corresponding second flanges that are connected to the first flange.

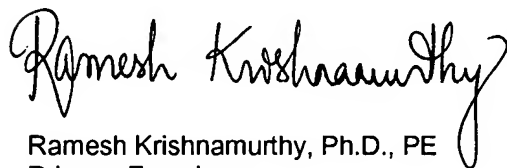
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene L. Mancene, can be reached on (571) 272 – 4930. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 – 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
Art Unit 3753